THE REALM OF THE IN-BETWEEN
An Exploration of In-Between Space as Place
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My thesis investigation focuses on identifying the qualities, potential and possibilities of ‘in-between’ spaces. The purpose of this investigation is to challenge the notion of ‘non-place’ with which these types of spaces have become associated. I believe that in-between spaces have the potential to function as places of inter-connection, exchange, public space and hybrids, when considered and designed appropriately, thus, these spaces play a vital role in the fabric of towns and cities.

My interest in this field of study was born out of observations made in earlier studies. Site analysis in my previous projects led to an observation that large scale transport infrastructure in Ireland (while linking areas on a larger scale) carve apart the landscape at a local and human scale. What results is a separation of landscape by elaborate, single function infrastructure. This example of an ‘in-between’ space does not optimise the potential it possesses as place- as a place positioned between and influenced by its surroundings, a place of co-existence and interchange, a place with potential for multi-function or hybrid situations and, most importantly, a space that functions as a series of moments working together for the experience of the individual.

My project is located at the site of Colbert Station, Limerick City’s train and bus terminal. The presence of the railway has brought about a distinct separation of the unique cluster of education building to the north of the site and the sports facilities and public park to the south. The result is an impenetrable and under-valued area of the city which does not successfully respond to, or integrate with, its surrounds.

My proposal is to build on the existing transport, education and sports facilities and to focus on the overlap of programme and use within this brief to create hybrid situations and public space. In addition to the existing facilities to be built upon, I propose to create facilities for the Education Department of the University of Limerick at this site.

My thesis project is an attempt to answer the question- how can the design of in-between spaces stitch together the landscapes between which they are located?
This quote is from Samuel Beckett’s novel, The Unnameable, published in 1953 as the third and final entry to his ‘Trilogy’ of novels. These brief few lines, taken from the monologue of the unnamed protagonist, begin to open up the idea of an ‘in-between’ place. The words of Beckett’s protagonist identify the place which best describes where he feels he is positioned in life - in the middle, neither one place nor another, belonging to neither yet surrounded by and reliant on what it is he feels he exists between. This description of the ‘in-between’ is, of course, a non-physical space. It is more an attitude or a feeling towards his existence, yet the imagery provokes a more spatial understanding of his world; the interface between outside and inside, the divide between two worlds, the existence of two surfaces so closely related. But what is most striking is the identification of a third element; the middle, as its own entity. One which has a presence, to the protagonist, just as strong and relevant as the conditions it exists between. He describes it as a physical place, or position, as it is somewhere which he feels he occupies and within which he feels he can exist - however despairingly.

The idea of in-between space as a type of place is an interesting topic for investigation. This is due to the fact that in-between spaces are heavily criticized for the lacking sense of place associated with them. Within this essay, the realm of the in-between is explored in order to establish an understanding of the identity of ‘in-between’ space. That is to say, what are in-between spaces?, where do they occur and what has contributed to their occurrence? An exploration into the ‘in-between’ serves to recognise and highlight the potential of the ‘in-between’ as public spaces; as spaces of connection and interchange. In addition, this essay will investigate the relevance of in-between spaces within the design field in terms of the design potential they possess when considered in terms of their qualities. This investigation will take us from an understanding of the ‘in-between’ as ‘place’, to the identification of in-between spaces, and their contributing factors, within a city context; from the potential these spaces posses as public spaces to the types of in-between spaces such as physical, non-physical, transitional-, and to the human experience of occupying in-between spaces in terms of mobility. In order to explore the realm of the ‘in-between’ we must look at it in terms of all of the above mentioned conditions in the hope of identifying and understand the qualities of these spaces and to challenge the idea of in-between spaces as ‘non-places’. We begin with a definition of ‘liminality’ and move towards an understanding of the ‘in-between’ in order to deepen the understanding the ‘in-between as place’.
Liminality is defined as the transitional threshold between two fixed states in cultural rites of passage or as the condition between two dissimilar spaces in architecture, occupying a position at, or on both sides of, a boundary. For liminal spaces to occur there must exist, at least, two definite or opposing conditions within which a person can transition from one to another. Examples of these conditions include; indoor-outdoor, manmade-natural, public-private, industrial-residential, past-future, city-town. These are all definite conditions (often but not necessarily opposing) which we are quick to recognise and respond to accordingly. However, there is something of interest to be explored in the liminal spaces that exist between these conditions and in the potential of these spaces as public spaces where connections and inter-change can occur.

These liminal spaces can be considered as ‘in-between’ spaces if we consider the in-between as Lisa Hsieh has in Inhabiting Identity, that is to say, “something which exists or occurs as an indefinite and unsettled place, between two extremes”. (2) The uniqueness of these spaces can be thought of as having the quality of something that intervenes between one thing and another- between two landscapes, two buildings, two cities or two conditions, and therefore offer a unique spatial quality, one of ambiguity, as a space that is both specific in its own typology yet dependant on and influenced by the conditions it exists between. These liminal spaces can exist on boundaries, where we transition from one condition to another. They are, therefore, places of osmosis where identities can exist and have inter-dependence.

Liminal spaces have the potential to transform the occupant of a space as they transition through it. The experience of liminal space poses a discontinuity and dissociation from the familiar, and leads a person to question their surroundings. The result of this is a heightened awareness of the spaces as a threshold, between distinct spaces. This is achieved through the cinematics of the space, where the perception of the individual is heightened as they move through the transitional space. This quality is unique to the transition through a threshold space as it connects two dissimilar spaces. The composition of in-between spaces is that of a series of moments which ultimately work together to create an experience that impacts on the individual.
The criticism of in-between spaces, put forward by Marc Auge in his book, *Non-Place: An Introduction to Supermodernity*, is that of the idea of ‘non-place’ with which they are associated. Auge identifies spaces such as airports, supermarkets and spaces associated with mobility as ‘non-place’. In identifying a distinction between place and non-place he states that,

“If a place can be defined as relational, historical and concerned with identity, then a space which cannot be defined as relational, historical or concerned with identity will be a non-place.” (3)

For many, the idea of the ‘in-between’ space as ‘place’ does not exist. In-between spaces are criticized for being neither one entity nor another. They are spaces which are not so easy to point towards and identify. But this notion is a curious one when we examine Teyssot’s description of the in-between as place.

George Teyssot, in *Mapping the Threshold: A Theory of Design and Interface*, discusses the in-between as a threshold zone. In identifying boundaries between definite conditions, Teyssot highlights the existence of an in-between state,

“Passage and peristyle, pranos and portal, entry and vestibule, triumphal arch, sacred and profane: These lines do not create a boundary but an in-between, a space in the middle. The form of the threshold, as temporal and spatial figure, is that of the ‘between-the-two’, of the medium that opens between two things.” (4)

Another quote from Teyssot helps to clarify what is meant by ‘in-between’ spaces, in the physical sense,

“...arcades, winter-gardens, factories, wax museums, casinos, railroads...these spaces are spaces for the crowd...the public spaces of the collective are also internalised as a particular type if interior –threshold spaces where the interior and exterior meet, where public and private literally find common ground... The public space becomes a threshold, a space that holds together or ‘contains’ the flow of the crowd.” (5)

This quote clearly identifies in-between spaces as place. Furthermore, Teyssot highlights a particular quality and potential of in-between spaces as spaces of connection and inter-change, where publicness occurs and, thus, the potential of these spaces begins to emerge. The juxtaposition of the ideas of ‘in-between’ spaces as ‘place’ and ‘non-place’ sets up the investigation of this essay, as a means of discovering the identity of in-between spaces, their qualities and their potential.
Another means of understanding and exploring ‘in-between’ spaces is to look at the lost space of a city. Roger Trancik’s *Finding Lost Space* defines the in-between spaces of a city as “lost spaces (that) are the undesirable urban areas which are in need of redesign...they are ill defined and fail to connect elements in a coherent way”. (6) Trancik’s description of the in-between spaces of a city deals with spaces within a city context which have developed unsystematically. The lacking concern for proper design of these spaces and attention toward their potential has resulted in gaps in the urban fabric, posing a discontinuity and failing to successfully connect spaces along the urban landscape. If a quality of in-between spaces is the ability to connect and mediate between the conditions within which it is situated then a lacking concern and understanding of these spaces fails to optimise their potential. The result is, as Krier notes in *Town Spaces: Contemporary Interpretations in Traditional Urbanism*, that a few parts of the city function well and have successful connections but that these intact elements stand alone in the city, disconnected from their surroundings where a lack in attention to the design of the in-between occurs, “…we content ourselves with a few intact urban situations that appear like islands in a harsh cityscape”. (7) Trancik describes the factors which have brought about these types of spaces within an urban context, as being; the design trends of the Modern Movement, changes in land use and an increased dependence on the automobile.

Trancik notes that the Modern Movement, a period of design from the 1930s to the 1960s, was founded on abstract ideals of the freestanding buildings. In doing so, this movement has been criticized for turning its back on the profile of the important design models of our past, such as Medieval or Renaissance cities, by neglecting the design of the spaces between buildings. Trancik notes that these spaces were given little consideration, resulting in spaces of discontinuity between buildings. This is a situation we can relate to today, in terms of how our city spaces function and the lacking connection between buildings within the urban fabric. Consideration and exploration of the in-between spaces of a city serves to highlight the need for attention towards these spaces in terms of design in order to optimise their potential, as spaces of inter-change and connection, to benefit our cities.

Changes in land use, in more recent times, such as the relocation of industry, commercial and residential buildings from an urban location to suburban has resulted in underused spaces within the downtown core of the city. (8) These spaces, once integrated into the cityscape, now exist as holes within its fabric. They are spaces and voids between buildings. The potential of these types of in-between spaces lies in their location. Spaces occurring between two buildings, or amongst a number of buildings, within a city environment offer great potential as mixed use areas or hybrids. This situation means that these spaces take influence from the condition they exist between while fulfilling a mediating role also. However, as previously mentioned, a lack of concern for the proper design of these spaces has the opposite effect of breaking the continuity of the urban landscape.
THE IN-BETWEEN AS LOST SPACE

An example of positive reuse of these types of in-between urban spaces is the Chasse site in Breda, the Netherlands by Office of Metropolitan Architecture (OMA). The Chasse site was formerly a military barracks located in the city centre of Breda (a mid-sized Dutch city with a low density urban core.) The design involved a masterplan by OMA to transform this brownfield site into a high density area with a hybrid program including housing and underground parking. The site strategy was developed as a series of campus-like clusters which combine urban scale with open space. Several other architects were commissioned to design the housing clusters. The park and the square exist as the two prominent pedestrian open spaces, where the parks lawns, with the informal pedestrian and cycle paths, contrast the hard surfaces of the square.

The overall aim of the Chasse site project was to create a green space that was different to its surroundings yet stitched together the void in the urban fabric. To achieve this, the large parking garage was buried and its roof became the ‘square’. At ground level the square is articulated by the geometric pattern of black and white triangles and its edges, marking the ‘folds lines’, are accentuated by thin sections of granite. The design of the square allows for the vast, light-filled parking garage below ground. By giving priority to the pedestrian and keeping the site free of vehicular traffic, the Chasse project makes positive use of the former brownfield site and creates an interesting hybridity in the fusion of square and garage and successfully knits the surrounding structures together. [9]

Increased dependence on the automobile is possibly the most difficult of the factors contributing to the emergence of in-between spaces as it is so heavily ingrained in the Irish way of life. Trancik highlights that “mobility and communication have increasingly dominated public space, which has consequently lost much of its cultural meaning and human purpose”. \(^{(10)}\) The idea that our dependence on the automobile has led to in-between or lost spaces and that it has resulted in a change in how we experience a city is one shared by many. We’ve seen the argument put forward by Auge, that increased mobility has led to ‘non-places’. This is an idea explored by Luisa Maria Calabrese, editor of the 2003 Architectural Biennale Rotterdam publication, *Mobility: A Room with a View*, in which she notes that the car dictates “...where we drive, where we are driven and where we avoid being overrun”. \(^{(11)}\) The reason for the domination of city spaces by the car is due to the fact that the construction of the in-between spaces associated with mobility is primarily a technical matter, reserved for traffic planners, engineers and politicians. The designer plays little or no part in the development of these spaces. As Francine Houben, another editor and curator of the above mentioned Rotterdam Biennale, discusses in her foreword, “It appears to have escaped the attention of policy makers that mobility is not just a matter of tail-backs, asphalt and delays, that the car and the train, for the traveller is not simply a means of getting from A to B but also a ‘room with a view’, and that mobility routes are not only spaces for traffic but also public spaces, spaces to spend time in.” \(^{(12)}\)

These examples of ‘lost spaces’ identify the in-between spaces associated with mobility and public spaces. Having identified the in-between within a city and highlighted the negative issues associated with spaces of this quality, Trancik continues the train of thought of Calabrese and Houben by mentioning the ‘tremendous opportunities’ these spaces offer as a means of rediscovering the many hidden resources of our cities and the potential of these spaces as public spaces.
The Gran Via De Les Corts Catalanes, in Barcelona, Spain, is an example of the amending of large scale transport infrastructure, built within the urban structure to optimise its potential for public space. Barcelona, like many European cities, experienced an era, in the 1960s-70s, of large road infrastructure. Amending the interventions has been a community-driven concern since the 1990s. The Gran Via De Les Corts Catalanes was part of the Metropolitan Plan of 1976 to structure growth in the previously under-urbanized area. The design consisted of a sunken central axis, bordered by green slopes and flanked by street level access. Positioned at every 400 meters (equivalent to every 3 blocks) were bridges which connected the seaside and the mountain side of the axis.

Today, the eastern section of the Gran Via is better known as the A19 Highway, stretching from Placa de les Glories to the Besos River. It is one of the main entrances to the city. Architects Arriola and Fiol completely reconfigured the formerly noisy and polluted mega-structure in order to reduce the dominance of vehicular circulation, connect the urban fabric on the two sides of the axis and, most importantly, to create new public space. To achieve this, the transport structure was re-worked into a multi-level boulevard with the section changing along its route. The primary spatial move was a 3.5 meter cantilever projection of the service roads over the central carriageway - the purpose of which was to reduce the noise and pollution for the adjacent neighbourhoods. At ground level, road installations have been embedded in a linear park whose inclined sections manage the change in levels of various routes and the existing urban fabric. Traffic is organised into three levels: a central truck road channelling fast traffic, lateral roads - elevated over the central road with bus stops, garage entrances, loading bays and service stations, and service roads with cycle lanes. A grove-like promenade is created with the planting of trees and serves to strengthen the boulevard quality and public space. The park is fitted with a series of specially designed benches that furnish the squares as outdoor rooms. \(^{(13)}\)
While considering public domain as a brief for design and policy, Hajer and Reijndorp, authors of In Search of a New Public Domain, point out that public space does not only appear in the city, but often develops in and around the in-between spaces. They define ‘in-between’ spaces as spaces which arise in “the archipelago of homogenous and specialized islands, in surroundings that belong to different social, economic and cultural landscapes” (14). Furthermore, Hajer and Reijndorp state that these spaces have the quality of liminal spaces as they are border crossings. In-between spaces are places where the different worlds of the inhabitants of the urban field touch each other. They give the market place as a physical example of such a liminal/in-between place. Here again, the potential of in-between spaces as hybrid conditions is felt. Market places provide spaces which one can transition through, they have a temporary quality and provide a public room for mixed use and functions.

The potential of in-between spaces as public spaces is strengthened further if we consider that the in-between condition occurs in spaces associated with mobility and thus can function as a framework where publicness is forced by virtue of the various modes of mobilization (cyclists, pedestrians, automobiles, skateboarders) to co-exist and interact. Theorist, Linda Pollak, when discussing the importance and potential of in-between spaces in her essay Open Space, Boundary Events and Transitional Objects, notes the critical power of transitional spaces as social spaces and emphasises that we must consider the importance and potential of edges and the condition that occurs where edges meet,

“Boundaries can function as thresholds as well as barriers, to support and enable difference in social space... because boundaries are where things meet, they have potential, when approached and represented from different sides, to function as spaces of debate and ambiguity, where it is possible both to call identities into question and reveal their interdependence, whether these are identities of subjects or of spaces.” (15)

This quote begins to expand the realm of the in-between, if we consider the in-between to be what it is that exists where the boundary has a thickness, a space, and identity. It is not a fine line with a definite dimension. Instead, it is its own entity. It is influenced by the conditions it divides or mediates between but it has its own qualities and potential. It has its own publicness, place and possibilities.
The Simone De Beauvoir footbridge in Paris, by architects Dietmar Feichtinger, is an example of an in-between space which takes influence from its surroundings, stitching the urban flesh of the city together across the Seine, yet existing as its own entity and place. The light and elegant 270-meter span links the post-industrial redevelopment site of the south bank of the Seine to Bercy Park on the north bank, as well as the two quayside promenade areas along the Seine River banks.

The structure is composed of two interconnected geometries - the slender arc, in tension, between the quays and the suspended curve, in compression, which links the urban districts which were previously separated by the Seine. The gentle arc and curve allow for easy access and fluid crisscrossing of paths where the two geometries intersect. The clever decision of interlocking geometries permits the pedestrian to experience the river and urban landscape through a choice of routes along the structure. Pedestrians walk both on and in the hybrid structure. This creates moments close up to the water or far removed from the water for visual connection to the cityscape. From the arc of the bridge a view of Notre Dame Cathedral is achieved while the lower route directs views to the water.

What is most interesting about this project, in terms of an in-between space, is that it does not simply provide a means of reaching a destination. It stages opportunities to view and experience the urban setting and the waterscape across a river setting. In doing this, the Simone De Beauvoir footbridge takes influence and responds to its surroundings, while fulfilling its role in knitting the urban landscape together. It is a bridge, a public space and a unique way to experience both city and water crossing. (16)
The idea of the in-between as a public space is not an unfamiliar one when we consider ‘intentional transitional spaces’. Intentional transitional spaces are those in-between spaces which are intentionally designed and which must exist, by necessity, in order to connect places. They are transport spaces such as airports, motorways, train stations, bus stations and terminals of various descriptions. They have been described as in-between spaces, neither belonging to one place nor another. These types of in-between space relate more directly to the notion of the ‘non-place’, discussed by Marc Auge. Auge criticizes these in-between spaces for lacking a sense of ‘place’, specifically with regards, to transport via car. This is particularly relevant in Ireland today where we developed a strong dependence on the automobile as a means of transport. These spaces are, by their nature, transitional/in-between spaces yet they are also spaces where publicness occurs by virtue of the various connections, inter-changes and interactions that must occur there— they are places of connection and interchange.

In 2003, the International Architectural Biennale Rotterdam publication, *Mobility: A Room with a View*, describes transportation spaces as “...not only spaces for traffic but also public spaces, spaces to spend time in”. This challenges the argument put forward by Auge, that increased mobility has led to intentional transitional spaces becoming in-between spaces, spaces that are ‘non-places’ and ‘transit zones’. Looking at the potential of the in-between as a space that connects two conditions, a mediating space or a public space, challenges the lacking sense of place of the in-between and allows for a new ground connection to this type of space.
The Oslo Airport project by Aviaplan AS and Norud Stokke Wiig Architects, in collaboration with landscape architects Bjorbekk and Lindheim, challenges the notion of non-place linked to intentional in-between spaces such as airports and terminal spaces. In Norway, the affinity of man-made interventions to the natural environment has been an unspoken, long standing tradition, a tradition which was upheld in the design of the new airport in Oslo. It was insisted upon, by the Norwegian Parliament, that the airport ‘evoke Norway’. In doing so, the airport was to become a creation which was both a high-tech airport and an example of Norwegian vernacular. The handbook of visual requirements outlines the following concepts, to be included in the design, as ‘prudence, closeness to nature, an open and egalitarian society, (and) good use of local resources’. (18)

The airport is situated at the threshold between the dark evergreen forest in the northeast and the farming flatlands to the south. The terminal, looking towards the forest, is made of warm wooden the glazed facades. The south ancillary buildings are grouped and roads and railways nestle into carefully considered planted birch and maple trees. Flower meadows surround the runways and buildings, while dry walls merge with the surrounding landscape, creating a landscape of transportation which embodies the Norwegian vernacular. The design consideration for this type of in-between space is rooted in the sense of ‘place’ held by the people of Norway and, therefore, expels the idea if intentional transitional buildings associated with transport as being place-less and generic. (19)
It has been mention previously that in-between spaces function as transitional spaces. In order to understand the in-between space in a more physical sense, it is important to observe how some examples of these types of spaces have been incorporated into design. The experience of in-between spaces requires movement. One moves from the outside to the inside or through a series of moments along a route, for example. Even, when experiencing a space, one cannot look in all directions simultaneously, and so, movement is necessary in the experience of place. In this context, place may be thought of as somewhere one stops—a market place, a living room, a work bench. But the definition of place cannot cease with the idea of a static place or node. The pathway taken to get from one such static place to another is a place too. We might called these spaces ‘dynamic spaces’, and the importance of these spaces in the experience of place is noted by Simon Unwin in his book *Analysing Architecture*, where he mentions that “Dynamic spaces play an essential part in the conceptual organisation of space.” Unwin explains that the character of static place may be affected by that of the dynamic places that lead to it or connect two or more static places. Transition plays a significant role in terms of the relationship between static spaces. That is to say, they play an important role in the way that a place relates to its context.

In-between spaces as transitional spaces extend the passage from public realm to private. Often, an architect avoids the most direct route so that the person approaching and entering a house, for example, or any place of seclusion, can be led through progressive sequence of experiences. An example of this is the Ward Willits House, Highland Park, Illinois 1902, by Frank Lloyd Wright. In this project, the hearth is the heart of Wright’s design and lies at the core of the plan. The individual experiences a transition through a hierarchy of spaces from the moment of departure from the car to arrival at the core of the plan. The car drives under the porch which projects from the house over the driveway, from this sheltered position the individual climbs a series of steps onto a low platform that leads to the door, passing diagonally across a small hallway, more steps are climbed before a sharp turn left is made into the main living area where the hearth is located behind a screen which hides it from the entrance point. This is an example of the breaking down of an in-between space into a series of moments working together to heighten the experience of the space as a transitional space.

In-between spaces also act as buffers in the design of distinct spaces, performing a mediating role between them. Examples of these types of spaces include the spaces buffering between an inside and the outside. There if often a very practical reason for the occurrence and design of these spaces, such as draught lobbies, but there is also a psychological element associated with the function of these spaces too. In 1953, Alvar Aalto built a summer house on the island of Muuratsalo. The plan of this building is a square enclosed by high walls where the living accommodation is arranged along two sides, leaving a square courtyard. This courtyard is an in-between space between interior, human dwelling and nature, which surrounds.
The above examples describe how in-between spaces can perform a physical function. However, in-between spaces or transition spaces are often used as metaphors for the interface between different worlds, the non-physical worlds: between the public and private, the profane and the sacred, the real and the make-believe, the living and the dead. Thus, architects must respond to these interfaces within the design of spaces by concerning themselves with the design of the in-between. Some historical examples best describe how a concern for and an understanding of the ‘non-physical’ in-between has informed design. This is represented as an elongated series of moments, each marking a specific event, yet working together to create an experience which impacts on the individual. Examples of spaces where an interface occurs and design must respond include funeral ceremonies (the transition between living and deceased), and religious ceremonies (the transitions made through one’s spiritual life).

The ethnographer, Arnold van Gennep, author of *Rites of Passage*, defined the rites of passage as ceremonies that accompany any individual’s ‘life crises’. He explains that each rite of passage is a three-folded structure, that is; Separation, Transition and Incorporation. The transition from one stage to the next, or as he gives the example of, from the ‘profane to the sacred’, is so great that there must be an intermediate stage- the in-between stage.

"So great is the incompatibility between the profane and the sacred worlds that man cannot pass from one to the other without going through an intermediate state." (23)

It is clear from this statement that the in-between stage is one that bridges, connects or mediates where an interface occurs. This is relevant in searching for a definition of the in-between, as an idea which originates from anthropology.

Ceremonies of initiation or of departure often take place along routes that are identified architecturally. The plan and section of the ancient pyramid id effectively a diagram of the ceremonies the body of the dead pharaoh went through. The barge, carrying the body of the deceased pharaoh, would have been moored by the valley temple, where it was prepared and embalmed. Later, the body would have been carried along the causeway to the mortuary temple at the base of the pyramid. Here, more ceremonies would occur before the body was carried, through a passage, to the core of the structure where it was laid to rest. Today, such elaborate ceremonies do not occur but the sequence of moments in the ceremony and mourning of the deceased play a vital role in the design of many funeral homes as spaces where the interface between life and death occurs.
Similarly, the plan of the Hindu Temple demonstrates how the design of an in-between-transitional space reflects the transition one makes in their spiritual life. The Hindu temple is comprised of a series of rooms which rap around and radiate from a sacred central core, like ripples from a stone. The central room is the smallest and the most spiritual room in the temple. Access to the central core can only be gained by transitioning through the rooms surrounding it which are divided by a long and high passage ways, marking the significant separation between rooms. The depth to which an individual can penetrate the temple is reflective of their position in their spiritual life - the marriage chamber can only be entered by those who have committed the sacred union of marriage, for example. Thus the most sacred individuals can access the temple core. This is an example of the design of in-between spaces reflecting the non-physical in-between state and interface between the profane and the sacred.

The Egyptian pyramid and the Hindu temple are historical examples of design which has concerned itself an awareness of a series of moments which simultaneously mark an individual and specific moment, yet flow into each other seamlessly. The architectural language of the A16 highway, designed by architects Renato Salvi and Flora Ruchat-Roncati, which follows a route between the Jura mountain range, between Bienne in Switzerland and Belfort in France, is a contemporary example of the design principle outlined in the previous historical examples. The A16 Highway explicitly celebrates the notion of threshold. An entire repertoire of parts (tunnel entrance, ventilation towers, abutments, pylons, bridges, viaducts and the formal cut-and-cover tower) were developed to mark specific moments along the route and yet function as one recognisable family. The design of the highway is one of clear-cut forms with strong geometries in rough concrete. Each solution is singular, yet the common language assembles the structure into a succession of memorable events along the route. As with the design of the Egyptian pyramids, the successful marriage of the pragmatics of the engineering and the poetics of passage is successfully conveyed in a number of tunnel entrances. Two concrete structures facing each other at the ‘Grippons’ interchange appear as tombstones marking the direction of the motorway in the flank of the mountain. Salvi’s thresholds mark sections of the landscape and set up a rhythm. They are gestures which initiate an entry and exit point and repeat the same vocabulary and design principle at both ends of the route. (24)
It is almost impossible to explore the idea of in-between spaces without addressing mobility. This is due to the fact that the way in which one experiences in-between spaces is often through mobility. Mobility involves displacement, that is, the movement from one condition to another or, quite literally, getting from A to B. As mentioned before, the experience of in-between spaces requires movement, thus, with this information it can then be said that it is often through mobility that we occupy in-between spaces. Mobility is the act of moving between locations; between towns and cities or from our doorstep to our car-mobility occurs at all scales. This is the simplest understanding of mobility, but in terms of the way we occupy in-between spaces, there is more of mobility to explore.

The relevance of mobility to the realm of the in-between can be made clear through Cresswell’s definition of ‘mobility’, ‘movement’ and ‘place’ in his book, On the Move. He defines ‘movement’ as the general fact of displacement before the type, strategies and social implications of that movement are considered. Therefore, we can think of movement as the dynamic equivalent of location. Cresswell continues to explain that if movement is the dynamic equivalent of location then ‘mobility’ is the dynamic equivalent of place. Cresswell describes ‘place’ as a centre of meaning—we become attached to a place and we experience a place.

“Mobility is just as spatial and just as central to the human experience of the world, as place.”

If mobility is how we experience in-between spaces then the idea of mobility as place serves to strengthen the definition of the in-between space as place.

Considering the human experience of mobility, in terms of the way in which we occupy in-between spaces, involves considering mobility as a brute physical fact. This implies that the human experience of mobility is something to be observed as an empirical reality. This type of mobility is practiced, it is experienced, it is part of living or as Cresswell puts it, “...it is a way of being in the world”. Mobility is irreducibly embodied in our everyday lives.

‘Mobility as becoming’ is a notion addressed by Cresswell when discussing what David Delaney has written in his paper, Laws of Motion and Immobilization: bodies, figures and the Politics of Mobility, where he states that,

“human mobility implicates both physical bodies moving through material landscapes and categorical figures moving through representational spaces”
THE IN-BETWEEN AS THE EXPERIENCE OF MOBILITY

The idea of ‘mobility as becoming’ is concerned with the interface between mobile physical bodies occupying in-between spaces and the representational non-physical in-between associated with those spaces, discussed earlier. Cresswell continues by mentioning that the occupants of such in-between or transitional spaces are never just people – they are dancers, they are pedestrians, they are drivers, athletes, tourists and business people. They are individuals experiencing a space through which they are transitioning. An understanding of, and a concern for, the experience of the individual as they transition through an in-between space is vital in the designing of these spaces.

"To understand mobility without recourse to representation on the one hand or the material corporeality on the other is, I would argue, to miss the point." (29)

The moving view created by in-between spaces and experienced by the individual is similar to that of a motion picture, therefore, most in-between spaces of projects influence the moving gaze in one way or another. When designing for in-between spaces, such as those previously mentioned, vision is the principle sense called upon for the experience of an uninterrupted sense of spatial sequence. Bridges, such as those in Paris – the Simone De Beauvoir Footbridge mentioned earlier, elegantly combine the crossing of the Seine with the linking of the higher and lower embankment. This characterises the river and urban section and is an example of the cinematics of in-between space.

The cinematic effect is also very powerful in the design of terminal buildings. The Arnhem Central-Multimodal Hub in the Netherlands, designed by UN Studios, uses the multiplicity of perspectives through flowing geometries as the driving force behind its cinematic design. In Arnhem, the area of the city’s former rail-yards has been redesigned and rescaled to create a new transportation hub. The new design incorporates a new station hall, bus terminal, railroad underpass, parking garage, bicycle storage, parking garage and fourth platform, along with a route to the town centre.

In order to optimise the potential of cinematic design, movement studies were carried out as the cornerstone of the project. Furthermore, studies in the city’s natural typography led to indentifying overlaps in circulation routes. The ground plane was redesigned in section to create a public realm that weaves vertically through the new structure. Priority was given to pedestrian movement and the circuit routes of buses and cars were kept clear of pedestrians. The overlapping of areas of shared interest helped to arrange various program components. Natural light reaches the lower entrance points of the station, creating clear and lengthy vision lines to aid orientation.

What is most successful and interesting in this project is the achievement of pedestrian flow, transport systems, lighting, structure and distribution of amenities which fuses together to form one continuous landscape.

(29) David Delaney, Laws of Motion and Immobilization: Bodies, Figures and the Politics of Mobility (paper presented at the Mobility Conference, Gregynog, Newtown, Wales, 1999)

(30) Kelly Shannon and Marcel Smets, The Landscape of Contemporary Infrastructure (Rotterdam, Nai Publishers, 2010) 178, 179
This essay has attempted to discover the identity of in-between spaces, their qualities, potentials and relevance to design today. We've seen how in-between spaces can act as transitional spaces, both physically and non-physically, and as transitional spaces within the design field, as discussed by Unwin. In-between spaces can function as spaces of mobility, as noted by Cresswell, while staging and arranging a cinematographic itinerary. In addition to this, in-between spaces offer great potential as public spaces, as Calabrese and Houben highlighted. It can also be concluded that a key quality of in-between space is that of connection, brought to our attention by the identification of in-between spaces of the city by Trancik. Furthermore, Trancik demonstrated the potential of in-between spaces for mediating between the conditions within which they are situated. He notes the need for attention toward these types of spaces for the benefit of our urban landscape. In-between spaces, in an urban context, also offer opportunity of a hybrid condition and inter-change, as Hajer and Reinjdorp note in their examination of these types of spaces, as a form of liminal public space.

The combination of the possibilities and qualities of in-between spaces identifies the relevance of they possess within the design field. Attention towards, and concern for, these types of spaces will serve to benefit the connections within our urban fabric and open up new potential for public space and connections. An understanding of how people occupy in-between spaces, in terms of mobility, will serve to benefit a better design of these spaces and optimize the human experience and awareness of the in-between.
THE PROJECT

My design studio project focuses on the design of ‘in-between’ spaces in an attempt to highlight their potential as public spaces which can exist as hybrids and stitch together the urban fabric within which they are situated. In order to do this, I believe that large scale infrastructural designs could learn from the design of smaller scale projects in order to optimise their potential. Furthermore, I believe that a better understanding of how to design these types of spaces and a more careful consideration of their qualities will help to challenge the notion of ‘placelessness’ with which they are associated. The idea for this field of research was born out of an observation made in an earlier brief study project, carried out in Shannon Town, Co. Clare, Ireland. The Shannon project, carried out in September 2011, was aimed at focusing on the idea of ‘boundary’. I chose to investigate the effect of the boundary created by large scale road infrastructure, which carves apart the landscape, on a smaller, local and human scale.
The introduction of a large road infrastructure servicing Shannon Airport, the N19- a branch off the N18 motorway, strengthened the connection of the airport to other Irish cities and towns. However, at a more local level, the new infrastructure, built in 2004, carves apart and widens the boundary between the landscape of industrial and residential. Residential development grew in the area in response to the growing opportunities of employment in the industries of the area, thus, a strong connection between residential and industrial landscape was part of an individual's daily routine. Pedestrian bridges were incorporated into the design of the new road infrastructure to facilitate the movement of residents from their homes to place of work. A criticism of these bridges is that they lack concern for the individual and do not optimise the potential they possess as spaces of public engagement and encounter. They do not address or respond to the diversity in the landscapes they carve apart. They do not optimise the opportunity of views they offer the pedestrian in, what is otherwise, a flat terrain. It appears to me that many large infrastructural pieces are designed in the two-dimension with little or no concern for the experience of movement felt by the individual. My design for the Shannon Town project focused on optimising the moments along the route between residential and industrial landscape, at the human scale, in order to assimilate it into the daily routine of the pedestrian and optimise its potential for public space.
Fig. 12
Study of the Movement and Visual Connections along the Route from Residence to workplace in Shannon, Co. Clare

Fig. 13
Description of Experience of same Route
Fig. 14
Diagram identifying the location of Boundaries in Shannon Town

Fig. 15
Section through Project Proposal - timber frame structure to enclose space along the existing infra-structure
In order to understand the connection and linking of landscape at a human and recognisable scale, I took my studies to my own campus at the University of Limerick. Research in reading material had turned my focus to places of education as examples of ‘in-between’ spaces. To investigate this I looked at The Foundation Building on the campus of the University of Limerick. The circulation route through this building acts as an in-between space, linking the central campus plaze at one level to the university car park, at ground level. The interior of the building acts as a street to the pedestrian while housing various volumes to facilitate a university program (concert hall, reception space, café, gallery space, Phd. study rooms, offices, classrooms, workshops etc.). The glazing and steel roof structure allow light to fill the space below, aiding in the experience of sheltered outdoor space as one moves from campus to car park.
Fig. 16
Plan of Foundation Building at the University of Limerick with solid and void abstract diagrams
Fig. 17  
Section through the Foundation Building at the University of Limerick, showing the ‘street’ space at the core of the section.

Fig. 18  
Abstract model of the route through the Foundation Building.
Large scale infrastructural projects associated with ‘in-between’ spaces offer many spatial experiences. In order to investigate these experiences and the designs which led to their existence, I focused on some American transport buildings; The Port Authority Bus Terminal, Grand Central Terminal and The George Washington Bridge Bus Terminal.

My studies into the design and experience of New York’s Grand Central Terminal involved discovering the importance circulation to the individual’s experience of place and space. How we perceive a space is dependent on how we approach it. Grand Central Terminal allows for visual connection as one moves through its sequence of spaces. This allows for a relationship to be established between the spaces one moves from to the ones entered. The structure, with large voids, allows for light to penetrate and illuminate deep into the plan and lower circulation levels. A series of archways make the distinction between one space and another while allowing visual connection. Circulation around the main staircases and a series of ramps within the structure allow for spaces to slow into one another seamlessly.

The George Washington Bridge Bus Terminal offered another type of experience of ‘in-between’ space. The architect, Nervi, used his experience of the design of aeroplane hangars to create a unique outdoors experience in the city. His design of a sheltered, open circulation level for buses and waiting passengers is both infrastructurally and spatially interesting. Clever arrangement of a modular precast roof structure allows for light and ventilation while sheltering the lighter, smaller scale structures for waiting passengers below. This creates spaces that is also ‘climatically in-between’.
Fig. 20
Sketch studies of the ramp system in Grand Central Terminal, New York, carried out on site.
Fig. 21

Sketch studies of the structure of the George Washington Bridge Bus Terminal, carried out on site.
My reading material had led me to an understanding of the various types of in-between spaces and the potential they possess, when designed and considered correctly, to exist as hybrids and to stitch together the urban tissue in order to benefit a city. Limerick City has an urban population of 90,757. Its suburbs saw a 23% growth since 1996 leading to the city becoming an example of a ‘doughnut’ city during the past economic ‘boom’.

A legacy of decisions to allow development on the outskirts of the city has seen the role of the city centre deteriorate. What remains in tact and strong in the city are the transport systems. I focused on the transport systems in existence at the core of the city. These included bus routes, pedestrian routes, main automobile artery routes and train lines. My aim was to observe how they operate and weave within the urban fabric. I began to focus on the train lines as they enter the city at Colbert Station.

In addition to the study of transport systems within the city, I made a series of models, focusing on the landscape between buildings, within a number of types of urban blocks (medieval and Georgian). The purpose of this spatial study was to identify the types of spaces within an urban block and how these buildings relate to one another. Furthermore, this study helped me to understand how, at a human scale, one can penetrate the block.
Fig. 22
Abstract model of the landscape between buildings, within a block of the medieval quarter of Limerick City.

Fig. 23
Abstract model of the landscape between buildings within a block of the Georgian Quarter of Limerick City.
Fig. 24
Map of the Main Artery
Traffic Routes into Limerick City

Fig. 26
Map of the Streets of Limerick City with the Greatest Footfall
Fig. 26
Map of the Bus Routes through Limerick City

Fig. 27
Map of the Train Lines servicing Limerick City
THE SITE: COLBERT STATION

At the site of Limerick City’s train and bus terminal, the urban fabric is carved apart by the entrance of the functioning railway lines at a level higher than its surroundings. The landscapes that flank the rails are that of a unique occurrence of a cluster of education buildings to the north, incorporating primary and secondary level education as well as adult education, and Limerick City Football Grounds to the south, currently concealed from view by vacant residential house due for demolition. The presence of the railway lines means a break in the connection between education and sport for students as well as the public space of Limerick City’s People’s Park.

The Colbert Station site sits just outside the city’s orbital route, at a point when the Georgian grid of the city ends. The site faces the city’s largest green space, yet it is not successfully integrated into the grain of the urban fabric. It is a gateway into the city, however, its poor design and neglect for the in-between spaces—between education, transport and sport—render the site impenetrable and neglected in appearance. The result is an undervalued area of the city with a growing number of derelict houses.

Having met with a number of individuals in residence close to the site and a member of the faculty of economics at the University of Limerick, my proposal is to introduce the Department of Education from the University of Limerick to the Colbert Station site, as well as to build on the existing transport, education and sports facilities. In recent times, the University of Limerick has expressed an interest in locating some of its departments in the city centre, in an attempt to establish a better connection between the city and its university, thus, bringing life to the ‘doughnut’ city. Limerick City has a number of areas suitable for housing university departments, however, I believe that the Colbert site would best serve this function, when we consider the overlap of brief between sports and education of the existing situation and that of the education department. Furthermore, the presence of the rail and bus transport systems can only serve to make this situation more viable.

My project focuses on optimising the potential for public space in the hybrid existence of transport, education and sport, to strengthen the relationship between these entities and use the individual’s experience of in-between space to fuse them together to form one continuous landscape.

UNIVERSITY OF LIMERICK DEPARTMENT OF EDUCATION COURSES

- Science with Teacher Education - Physics and Chemistry
- Science with Teacher Education - Biological Sciences with Physics or Chemistry
- Technology Degree in Teaching of Materials and Architectural Technology
- Technology Degree in Teaching of Materials and Engineering Technology
Fig. 28
Aerial view of Colbert Station Site

Fig. 29
Arrival Hall at Colbert Station
Fig. 30
Mapping studies identifying buildings of Education (yellow), Green areas in the City (green) and overlap of these.
Fig. 31

Mapping studies identifying settlement in the city (purple), infrastructure with dense settlement in the city (red), and an overlap of these.
Fig. 32

Mapping studies identifying green areas in the city (green), derelict buildings in the city (brown) and an overlap of these.
# SCHEDULE OF AREAS

<table>
<thead>
<tr>
<th>PROGRAMME</th>
<th>QUANTITY</th>
<th>AREA (M²)</th>
<th>AREA TOTAL (M²)</th>
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<tr>
<td><strong>EDUCATION</strong></td>
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<tr>
<td>Lecture Hall / Auditorium for 800 students</td>
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<tr>
<td>Metal Work Laboratory -for 30 students</td>
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<tr>
<td>Construction Laboratory -for 30 students</td>
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<tr>
<td>Science Laboratory -for 30 students</td>
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<td>QUANTITY</td>
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<td>TRANSPORT contd.</td>
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</tr>
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<td>Part of Circulation</td>
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<td>Public Walkway</td>
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<td>Shared</td>
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<td>Storage</td>
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<td>30</td>
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</tbody>
</table>

**TOTAL AREA : 9183 m²**
THE PROJECT

Platform Level Plan

- Showing the connection via walkway of the various hybrid buildings

The Walkway, constructed from Steel and Pre-cast Concrete, gives priority to the Pedestrian, allowing the passage of motor traffic below, while connecting the ‘lighter’ structure hybrid building, constructed from timber.
Site Analysis Sketches
- showing existing circulation around site, proposed movement of traffic under volumes containing programme, proposed crossing of railway tracks for other forms of transport to optimise connection

Final proposal in City Context
The new Train Station/Education/Public Park Spaces addresses and closes off the existing Georgian Grid while creating a new Gateway into the City
Ground Floor Plan

- showing the spatial connection at Ground Level between the various Transport, Education, Sport and Public Programme Elements
Front Elevation

The New elevation facing onto and addressing Parnell Street
Section One

- through the main Concourse, showing the Arrival Hall at Platform Level, with Sports Facilities below and Education Facilities above, Bus Collection point and Auditorium to the right with pedestrian walkway connecting these and Roof system Providing Shelter

Section Two

- through existing Rail shed into the new Arrival Hall
Project Perspectives

(anti-clockwise from top)

Perspective 1
- walkway from People’s Park to Main Concourse

Perspective 2
- Rail Platform with view to Sports Playing Pitches

Perspective 3
- Main Staircase into Arrival Hall with a view into Education Facilities above

Perspective 4
- Main Entrance Plaza

Perspective 5
- view from Walkway connecting the Education buildings with the Main Concourse
Ground Floor Plan

-showing Sports Facilities

below Platform Level
Existing Roof Analysis

- Analysis of existing roof system in Colbert Station

Structural Arrangement of
Floor System
- Showing Primary, Secondary and Tertiary Members
Roof Study Models
- development of roof system and Nervi's GWBBT roof Analysis

Proposal in Context
- birdseye view of proposal in context
Model of Proposal in context showing Roof System
IMAGE REFERENCES

Fig. 1  Kelly Shannon and Marcel Smets, The Landscape of Contemporary Infrastructure (Rotterdam, Nai Publishers, 2010) pg. 98
Fig. 2  Ibid., pg. 98
Fig. 3  Ibid., pg. 101
Fig. 4  Ibid., pg. 100
Fig. 5  Ibid., pg. 100
Fig. 6  Ibid., pg. 175
Fig. 7  Ibid., pg. 174
Fig. 8  Ibid., pg. 72
Fig. 9  http://www.google.ie/imgres?q=egyptian+pyramids
Fig.10  Ibid., pg. 147
Fig.11  Ibid., pg. 179
Fig.12  Author's own
Fig.13  Author's own
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Fig.32  Author's own
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